

CLAIMS

What is claimed is:

1. A shaping tool, comprising:
 - an arm;
 - 5 a swivel member;
 - a coupler for removably connecting the arm to the swivel member, wherein the coupler is formed to adjustably position the swivel member at an acute angle to the longitudinal axis through the arm;
 - a cutter detachably mountable on the swivel member; and
- 10 means for locking the swivel member and cutter into a range of desired positions during a shaping operation.
2. A shaping tool as recited in claim 1, wherein the coupler includes at least two arm extensions monolithically formed in one end of the arm, and a slot between the two arm extensions.
- 15 3. A shaping tool as recited in claim 1, wherein the coupler includes at least one tongue monolithically formed in one end of the swivel member.
- 20 4. A shaping tool as recited in claim 1, wherein the coupler includes opposing bores formed in the at least two arm extensions and a corresponding hole through the at least one tongue.
5. A shaping tool as recited in claim 1, wherein the cutter further comprises a substrate to which a shaping tooth is removably mountable.
- 25 6. A shaping tool as recited in claim 5, wherein the substrate and shaping tooth may be variably dimensionable.
7. A shaping tool as recited in claim 4, wherein the desired position locking means includes a connector removably insertable in the opposing bores and the corresponding hole.
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8. A shaping tool as recited in claim 7, wherein the desired position locking means includes a key for adjustably fixing the connector into a desired position.

5 9. A shaping tool as recited in claim 3, wherein the desired position locking means further comprises a beveled edge formed in the tongue.

10. A shaping tool as recited in claim 1, wherein the desired position locking means further comprises a keeper to position the shaping tool during operation.

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11. A variably positionable tool for shaping a rotating workpiece, comprising:
an arm formed with a slot and a plurality of bar extensions in one end of the arm;
a swivel member formed with leading end and a trailing end,
wherein a tongue formed in the trailing end is rotatably insertible into the slot;

15 a partially beveled edge formed in the trailing end of the tongue for restricting movement of the swivel member;

a cutter detachably mountable on the leading end of the swivel member; and
means for removably and rotatably mounting the swivel member in the slot.

20 12. A variably positionable tool for shaping a rotating workpiece as recited in claim 11,
wherein opposing bores are formed in the plurality of bar extensions.

13. A variably positionable tool for shaping a rotating workpiece as recited in claim 12,
wherein at least one corresponding hole is formed in the tongue substantially dimensionally
25 equivalent to the opposing bores in the plurality of bar extensions.

14. A variably positionable tool for shaping a rotating workpiece as recited in claim 13,
wherein the at least one corresponding hole and at least one of the opposing bores are formed
with threads.

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15. A variably positionable tool for shaping a rotating workpiece as recited in claim 14, wherein the cutter includes a substrate.

16. A variably positionable tool for shaping a rotating workpiece as recited in claim 15, 5 wherein the cutter includes a shaping tooth removably mountable on the substrate.

17. A variably positionable tool for shaping a rotating workpiece as recited in claim 16, wherein the swivel member mounting means includes a connector threadably insertable in the opposing bores formed in the plurality of bar extensions and in the at least one corresponding 10 hole formed in the tongue.

18. A variable angle tool for shaping a rotating workpiece, comprising:
a swivel member formed with a slot between at least two extensions in one end,
and further wherein the at least two extensions include partially beveled edges for
15 restricting movement of the swivel member;
an arm formed with a proximal end and a distal end,
wherein the distal end further comprises a tongue for rotatable insertion into the
slot;
a cutter detachably mountable on the leading end of the swivel member; and
20 means for removably and rotatably mounting the swivel member in the slot.

19. A shaping tool, comprising:
an arm;
a swivel member;
25 means for removably and rotatably connecting the arm to the swivel member,
wherein the swivel member is rotatable in relationship to the longitudinal axis
through the arm to form an acute angle varying between zero and thirty-five degrees;
a cutter detachably mountable on the swivel member; and
means for locking the swivel member and cutter into a desired attitude during a shaping
30 operation.

20. A method for shaping a rotatable workpiece, comprising the steps of:
mounting the workpiece on a rotatable shaft;
providing a shaping tool that includes an arm;
5 shaping a swivel member for removable coupling to one end of the arm;
mounting a cutter on the swivel member;
including means for restricting movement of the swivel member and cutter during
shaping of the rotatable workpiece;
attaching the shaping tool adjacent the rotatable shaft;
10 positioning the cutter against the rotatable workpiece; and
shaping the rotatable workpiece.

21. A method for shaping a rotatable workpiece as recited in claim 20, wherein the workpiece mounting step includes the substeps of:
15 selecting a brake lathe adapter system for securing the workpiece on a rotatable shaft;
choosing a workpiece to be shaped; and
securing the workpiece on the rotatable shaft.

22. A method for shaping a rotatable workpiece as recited in claim 20, wherein the shaping
20 tool providing step includes the substeps of:
forming from metal stock an arm having a cross-sectional configuration of a hexagon to
provide ease of handling for a craftsman;
shaping one end of the arm to form a slot between two monolithic arm extensions;
removing a hollow bore from each of the two arm extensions; and
25 forming threads within at least one of the hollow bores.

23. A method for shaping a rotatable workpiece as recited in claim 20, wherein the swivel
member shaping step includes the substeps of:

choosing metal stock from which to form the swivel member having a leading end, a trailing end, and a cross-sectional configuration of a hexagon to provide ease of handling for a craftsman;

forming a hole through the tongue;

5 removing a slab from opposing sides of the swivel member;

removing from the leading end a substantially triangular section to form an angular flat surface on the leading end;

forming a groove in the angular flat surface to provide at least two opposing monolithic flanges; and

10 forming at least one threaded passage through one or more of the two opposing monolithic flanges.

24. A method for shaping a rotatable workpiece as recited in claim 23, wherein the cutter mounting step includes the substeps of:

15 configuring from metal stock a substrate;

shaping an end of the substrate to be substantially triangular;

creating a ledge in the substantially triangular end of the substrate;

forming from metal stock a shaping tooth;

forming a hollow duct through the shaping tooth;

20 providing a threaded device for attaching the shaping tooth to the substrate by inserting the threaded device through the hollow duct.

25. A method for shaping a rotatable workpiece as recited in claim 24, wherein the restricting movement including means includes the substeps of:

shaping the trailing end of the swivel member to form a monolithic tongue having an edge;

beveling a portion of the edge of the tongue to restrict movement of the swivel member during use;

providing an adjustable connector for insertion through the opposing bores and the hole;

30 using a key to adjust the connector; and

inserting a removable threaded rod into the at least one threaded passage through the one or more of the two opposing monolithic flanges for compressible contact against the substrate.